Extension Service Circular 100 April, 1929

FOREIGN AGRICULTURAL EXTENSION ACTIVITIES

Canada, Paraguay, Norway, Sweden, and South Africa

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Cooperative Extension Work in Agriculture and Home Economics

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Abstracts from Recent Reports and Publications Received by
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Contents

DISTRIBUTION: A copy of this circular has been sent to extension directors, State and assistant State county agent leaders, State and assistant State home demonstration leaders, State and assistant State club leaders, negro supervisors, and to agricultural college and experiment station libraries.

Canada

Pig clubs. - Pig clubs have been in operation in Canada for about seven years and are now being organized in every province. They were begun in accordance with the policy of the Dominion department of agriculture which had the following objects in view:

Objects

(1) To stimulate greater interest in hog raising among boys and girls and to develop a more general knowledge of hog marketing methods.

(2) To give boys and girls practical instruction in hog judging so that they may have sufficient knowledge of the desirable market type to enable them to select breeding stock intelligently.

(3) To develop the community principle of breeding hogs.

(4) To demonstrate the value of producing a superior type of hog and marketing it to the best advantage.

(5) To study production costs more closely and to bring about improved methods of feeding and management.

These objects have been almost attained in Ontario, where the work has been extended to nearly every hog-producing section and where at the close of the fiscal year ending October 31, 1927, there were 346 active bacon hog clubs distributed in 40 counties, and will soon be realized in Quebec and Prince Edward Island. As a result of pig club work many farmers have been induced to take up hog raising and regular shipments, many of them select bacon hogs, are being made. Through the clubs a large number of pure bred bacon gilts are distributed every spring and become brood sows on the farms where they are placed. In 1926, the number of clubs; car lots, total number of hogs, and per cent of select bacon hogs marketed were as follows:

Results of pig club work

Province	Number of clubs	Car lots marketed	Total no. hogs marketed	Per cent of select bacon hogs
Prince Edward Island	6	5	408	55
Nova Scotia	21	6	331	54
New Brunswick	20	2	111	41.44
Quebec	40	40	3,432	22.7
Manitoba	23	11	660	58.5
Saskatchewan	20	--	---	---
Alberta	14	11-1/2	690	42
British Columbia	4	4	---	---

The clubs are organized by the agricultural representatives and their work is jointly supervised by the federal and provincial departments. Club members are visited from time to time and received advice and instruction in proper feeding rations, feeding of dairy by-products, growing green feeds, proper location of pens and the provision of outside hog yards. As far as possible, the boys and girls are kept informed of the progress made by the members of their own clubs as well as by those of other clubs to create mutual interest and establish confidence. The members of each club compete in judging competitions at the local club fair, and the two best judges from each club constitute a team which takes part in the interclub judging competition held at some central place in the province. Each year the winning teams in the interclub competitions in the western provinces are given free transportation by the Canadian National and Canadian Pacific Railways to the Royal Winter Fair at Toronto to take part in a competition as guests of the railways.

Alberta

Bureau of visual instruction. - The department of extension in the University of Alberta has a special bureau charged with visual instruction through motion pictures and lantern slides. This bureau, which is patterned somewhat after that of the University of Wisconsin, distributes films and slides on sheep, cattle, hog and poultry raising, dairying, beekeeping, and control of pests which are shown in schools and churches throughout the province. Some of these films and slides are obtained from educational institutions in the United States, and are admitted duty-free by the Canadian Government. The director of extension states that this service is developed to a greater extent in Alberta than in any other province in the Dominion.

Manitoba

Radio correspondence courses. - For the past three or four years the Manitoba agricultural college has been conducting radio correspondence courses which have become one of the most popular forms of extension work in the province.

Method of conducting.

The plan followed in the course on poultry husbandry will give an idea of the method of conducting these rather unique courses. The lectures were given in three series - Fattening and Preparing Poultry for Market, Poultry Management, and Incubation, Brooding, and Hatching. Each of these series consisted of 8 lectures. Each student was charged one dollar for each series, and was allowed to enroll for one or all of the series. When the required number of persons had been enrolled, the date of the first lecture was announced, and a synopsis of the first lecture or two was mailed to each student. Bulletins were also sent to the persons enrolling so that by referring to them and closely following the lectures, they would receive as much benefit as if they were in a classroom. Questions in the synopsis of the lecture aided the students in their study. The lectures were broad-

cast on Monday and Friday at noon, and the students were encouraged to write to the lecturer between these days to have points explained on which they were not clear, the information desired being supplied in a letter or over the radio. After each series of eight lectures was finished, examination papers were sent to each student. At the end of the third series certificates were mailed to each person giving the marks received.

Ontario

Junior farmers' associations. - The young farmers' movement began in 1914 when it was decided that by organizing the students attending the four to six weeks' courses in agriculture held every winter for young farmers and farmers' sons from 16 to 30 and over, their interest would be kept up in better agriculture in their communities. This movement has become one of the most important features of the work of the agricultural representatives and has exercised a powerful influence in many counties in Ontario. The associations include some of the brightest and most enterprising young farmers in the province. The Object of these organizations as stated in their consitution is:

Origin of young farmers' associations

To create a deeper and more permanent interest in the agricultural life of the district by:

Object

(1) Dissemination of agricultural knowledge among the members regarding improved farm methods.
(2) Conducting competitions in field crop production; dairy profit and baby beef competitions; competitions in feeding hogs for profit and livestock judging.
(3) Conducting simple farm experiments in cow-testing, commercial fertilizers, spraying, pruning, and thinning, underdrainage, apiculture, poultry-raising, and so forth.
(4) Introduction of better varieties of farm crops.

The officers of an association are a president, vice-president, secretary-treasurer, a committee of management, and two auditors. There is no age limit to members. While membership is limited to those who have attended the four to six weeks' courses in agriculture arranged by the provincial department, any bona fide young farmer under 30 may become an associate member. Each association is required to hold at least two meetings a year, and if possible, monthly meetings. The program of the winter meetings includes addresses, debates, musical and social features, and in the summer there are picnics and automobile tours. Public-speaking, debating, dramatic, and athletic contests are

Officers, members, program of meetings, cooperation with junior institutes

conducted by the associations. The agricultural representatives cooperate with the women's institute branch in organizing and carrying out community and county programs arranged by the junior farmers' associations and the junior institutes. In 1927, there were 109 junior farmers' associations with a total membership of 3,925. In eleven counties federations have been formed.

Royal Five Hundred

Four hundred and sixty-five boys, known as the Royal Five Hundred, winners in local competitions conducted by the junior farmers' associations, visited the Royal Winter Fair in 1927 as guests of the Ontario Department of Agriculture. An essay competition was arranged to encourage keen observation and retain a clear idea of the trip. Three prizes were awarded for the three best essays in each county and a provincial prize for the best one in each county. The boys who wrote the ten best essays were given a two-weeks' short course at either the Ontario Agricultural College, Guelph, or at Kemptville Agricultural College, with railway fare, board and lodging paid by the Department of Agriculture. A Toronto firm that entertained the 465 boys while on their visit to the fair also paid the expenses of 20 boys to a two weeks' short course in agriculture. The boys were selected from the 51 who ranked highest in judging competitions in their respective counties through a competition in answering questions on agriculture and on the trip. Fourteen of the successful 20 selected the Ontario Agricultural College at Guelph and six, the Kemptville Agricultural College as the institution they wished to attend.

Calf club competition at Royal Winter Fair. - Five teams of two boys or two girls each, members of boys' and girls' calf-feeding and boys' calf-breeding clubs in Ontario, Quebec, and the Maritime Provinces, took part in a competition held at the Royal Winter Fair at Toronto in November 1928, to decide the championship in Eastern Canada and win possession of the Canadian National Railway trophy and medals. These ten boys and girls who represented the 112 boys' and girls' calf-feeding clubs with 2,492 members and the 35 boys' calf-breeding clubs with 437 members, participated in the first event of this kind held under the auspices of the agricultural department of the Canadian National Railway. The calf-feeding and calf-breeding clubs, organized under the policies of the livestock branch of the Dominion Department of Agriculture, and conducted in cooperation with the provincial departments, have done much to further the development of the dairy industry, especially in Quebec, where the total membership is 2,255 boys and girls. The principal aim of both calf-feeding and calf-breeding clubs is to increase the average production per cow.

Women's institute courses. - The Institutes Branch of the Department of Agriculture provides lecturers for demonstration-lecture courses held each year by the women's institutes in food values, cooking, home nursing and first aid, sewing and millinery. A course lasts two weeks and consists of 10 lectures and demonstrations, given each afternoon except Saturday. The locality in which the course is held provides a place for the classes, and the department pays for the services and maintenance of the instructor. Institute members pay 25 cents for a course, and other persons, 50 cents.

The course in food values and cooking teaches proper methods of preparing, cooking, and serving food with emphasis on the value of food to health. The subjects treated are vegetables, fruits, eggs, milk, cereals, cheese, meat, meat substitutes, bread and biscuits, desserts, salads, and sometimes canning of fruits, vegetables, and meats; beverages, sandwiches, party refreshments, pastry and cake making.

Cooking course

In the home nursing and first aid course instruction is given in care of the sick at home, what to do in an emergency and how to do it, how to assist the doctor or the nurse. There are lessons in daily health, national and personal hygiene, selection and care of the sick room; home sanitation and ventilation; treatment of fractures, sprains, and dislocations; dressing wounds; care of mother and baby.

Home nursing and first aid course

In the sewing course instruction is given in taking measurements, the use and care of the sewing machine, the use of patterns, and demonstrations are given in French finishings, including bindings, pockets, collars, plackets, and so forth. Each pupil is allowed to make a dress for herself under the supervision of the teacher.

Sewing course

The millinery course includes making hat shapes, flowers and trimmings, coverings and trimming shapes. Each pupil is allowed to make a hat for herself under the direction of the teacher.

Millinery course

Classes must furnish a table, stove, and cooking materials in the cooking course; sewing machines and table space in the sewing and millinery classes.

From November 1, 1927 to October 31, 1928, 277 demonstration-lecture courses were held with an attendance of 7,239.

Quebec

Results of demonstration farm work. - Demonstration farm work which has been conducted by the Quebec department of agriculture for six years and was begun to find out the returns on typical farms and to determine the effect of this work on profits, has proved to the owners of the farms as well as their neighbors that scientific farming methods bring the greatest profits. In establishing a demonstration farm, a typical farm is selected, that is, one that is typical in land and buildings, in size, and livestock, with typical practices, and problems typical of those in the district. The farm is managed by the owner under the direction of the department. A complete reorganization is usually necessary, but this is brought about gradually. Cost accounting systems that are used on the farms show the exact profits. The following figures speak for themselves:

Method of conducting

Year	Number of farms in operation	Average labor income
1922	11	- $213.65
1923	23	- 372.25
1924	28	- 4.46
1925	31	+ 766.66
1926	32	+ 641.07
1927	25	+1,011.83

Extension work in poultry-keeping. - The poultry service of the Quebec department of agriculture was organized in 1914. At present ten instructors are employed in as many districts to teach modern methods of poultry-keeping. During the last ten years their activities have included 9,298 practical demonstrations in killing and packing poultry for the market, caponizing, incubation; culling, candling, and packing eggs; visits to 28,734 poultry yards, to assist in incubation and raising poultry; construction of poultry houses, treatment of diseases; to cull flocks and supervise the fattening of poultry; inspection and other purposes; 633 visits to cooperative societies, poultry associations, and other organizations; 1,758 lectures; 515 demonstrations and lectures at shows; 640 inspections of official poultry stations.

Activities of instructors

Poultry stations, each with a modern laying-house for 100 hens and a colony brooder house for 400 chicks are established in sections where modern methods are not yet practiced. If satisfactory work is done the government grants funds to conduct the stations for two years. The poultry instructors closely supervise the work of the stations as well as of 11 of the 23 cooperative hatching stations established by the poultry service.

Poultry stations

Short courses lasting at least 4 days each are held at the various agricultural institutions in the province. Poultry judging, culling, breeding principles, incubation and rearing, housing and feeding the layers, preparation and marketing of poultry products are some of the subjects taught.

Short courses

Some of the results of poultry extension work are introduction in all counties of the so-called "cold" poultry houses, improvement of flocks and increased egg production through the introduction of better breeds, better methods of feeding, fall and winter egg production, development and popularization of artificial incubation and brooding, improvement of fattening methods and preparation of poultry for the market, cooperative marketing of eggs and poultry and an increase of more than 2,000,000 birds raised in 1926.

Results of extension work

Paraguay

Agricultural bank. - Though Paraguay possesses the soil and climate for a prosperous farming country, the great mass of the rural people are in a very backward condition and still cling to primitive methods and implements. On account of poor transportation and marketing facilities the farmers have had no incentive to raise more than enough for their own needs. For years the only activity in the nature of extension work was conducted by the Banco Agricola, the government agricultural bank, which was created by the law of September 24, 1887 and is still in existance. One of the articles of this law provided that "departmental agencies" should be established where considered necessary by the directors of the bank with the following functions:

Agricultural Bank

Departmental agencies and functions

(1) To make loans to farmers and merchants in amounts and upon conditions determined by the directors.
(2) To exercise supervision over farmers, stock-raisers, and merchants who received loans from the bank, and make a yearly report to the directors in regard to the use of the money, the amounts of their products and so forth.
(3) To encourage meetings of farmers, stock-raisers, and merchants to induce them to improve and increase agricultural and industrial work.

In 1894 the agricultural bank was reorganized and technical inspectors were appointed. The law required that the position of inspector should be filled by an agronomist or by a person with an equivalent agricultural education. The duties of the inspectors covered a wider range than that of the personnel of the departmental agencies in regard to extension work and were:

Inspectors and functions

(1) To submit brief reports on agricultural and agricultural-industrial matters to the Council of Agriculture and Industries or the administrator of the Bank.
(2) To study all matters connected with the progress of agriculture and related industries, the diseases of plants and methods of control, and to recommend the most suitable crops and best methods of production.
(3) To make visits of inspection to plantations, small farms, and other rural establishments, giving the proprietors advice regarding best practices.
(4) To make analyses of soils, water, and fertilizers.

The directors of the bank aided the farmers in purchasing farm implements, after tests were conducted to determine suitable kinds, bought and distributed seed.

Section of Agricultural and Agricultural Protection. - Owing to limited funds and personnel and the lack of a well organized plan, no definite results in agricultural progress were realized until 1923. In March of that year the Section of Agriculture and Agricultural Protection (Seccion de Agricultura y Defensa Agricola) was created as a dependency of the Banco Agricola, to improve farm practices and the condition of farmers in Paraguay. The attention of the section of agriculture was especially directed to the raising of cotton, one of the most important sources of income in the republic. A national commission was organized upon the initiative of the bank's administrators for the promotion of cotton production. This commission was unofficial in character and was composed of representatives of political parties, the ecclesiastical court, the chamber of commerce, the press, the office of lands and colonies, the national department of engineers, the agricultural bank, and other public and private institutions connected with the agricultural and economic life of the country. The commission cooperated with the bank, and 72 departmental commissions were organized to collaborate with the regional inspectors of the bank in the control of cotton diseases and pests, and to enforce regulations regarding the inspection of all kinds of plants and seeds imported and exported.

Section of Agriculture, a dependency of the agricultural bank

National commission

Board of Agriculture and Agricultural Protection. - In 1924, with a view to further expansion of plans for the advancement of agricultu re, Law No. 672 was passed creating the Board of Agriculture and Agricultural Protection (Direccion de Agricultura y Defensa Agricola), to replace the section of agriculture and agricultural protection. By this law, the board of agriculture, though a separate, autonomous body, was under the direct control of the agricultural bank which had the power of appointing and dismissing the personnel. The principal functions of the board of agriculture were stated to be:

Function of the Board of Agriculture

(1) Study of the needs of agriculture in regard to its development and organization.
(2) Proposal of measures best adapted to carrying out the above.
(3) Organization of a service of agricultural instruction and propaganda.
(4) Correction of routine farm practices and warnings to farmers regarding the weather.
(5) Introduction and distribution of seeds and plants in the zones best suited to them.
(6) Enforcement of sanitary measures regarding crop production and control of the importation and exportation of seeds, fertilizers, and insecticides.
(7) Information to producers regarding market prices and market requirements for preparing and packing products.

The law No. 672 provided for the establishment of departmental commissions of agriculture and agricultural protection to take the place of the commissions of agriculture organized by the section of agriculture and agricultural protection. Besides conducting campaigns in the extermination of plant diseases and pests, the commissions acted as intermediaries between the central institution and the farmers and carried on the service of agricultural propaganda and instruction. Printed bulletins, circulars, and specific instructions for raising crops suited to each region were supplied to the members of the commission for distribution to the farmers. The inspectors of the agricultural bank cooperated with the commissions in their work, and agents known as correspondents (corresponsales) were appointed to do propaganda work among the farmers and furnish the central office with necessary data regarding local conditions. The correspondents were farmers, industrial workers and rural people who gave their services free of charge. In 1924, 125 commissions were at work in 11 regions.

Commissioners of agriculture and agricultural protection

Shortly after the creation of the board of agriculture and agricultural protection, the government organized the Ministerio de Hacienda with the following sections:

Board of Agriculture, a section of the Ministerio de Hacienda

Board of Agriculture: Agricultural development, organization, propaganda, and statistics; agricultural protection and sanitary policy.

Live Stock Board: Encouragement and protection of live stock breeding.

Department of Lands and Colonies: Immigration, colonization and administration of fiscal patrimony.

Department of Public Works: Roads, etc.

Agricultural Bank: Agricultural credit, buying and selling contracts, agricultural warrants and loans.

The board of agriculture has thus become a section of the Ministerio de Hacienda and works independently of the Agricultural Bank, also a section of this ministry, and now merely an institution of commerce and credit. The functions of the board of agriculture remain the same as when it was a separate body working under the supervision of the bank. Commissions of agriculture and correspondents still assist in the discharge of the work with the farmers. In 1925-26, there were 117 commissions and 7 agricultural correspondents. The central commission of agriculture has been abolished.

Norway

Project of Norway Welfare Society for home economics work. - In response to a joint letter received in 1926 from the National Home Welfare League, the Norwegian Women's National Council, the Norwegian Peasant and Small Farm Women's Union, the Norway Welfare Society, the most important unofficial agency in Norway for the furtherance of agriculture, decided to extend its activities in the interest of the better management and increased well-being of the rural home. Accordingly, early in 1927, a committee was formed of four women and two men, by training and experience qualified to inaugurate this work. Upon their suggestion, the board of directors of the Norway Welfare Society appointed a special body known as the "housewives' committee" to take general charge of the work of improving home management, increasing the well-being of the home, and creating a proper appreciation of the national economic importance of housewives' tasks. At a meeting in September, 1928, it was decided to adopt the term "home economics" instead of "housewives" in designating the committee as better describing the objects in view. A circular letter, in substance as follows was prepared November, 1928, to be sent to the agricultural societies affiliated with the Norway Welfare Society:

Home economics committee

Circular letter to agricultural societies

> As you know our society has appointed a committee to work in every way possible for the improvement of home management and the increased well-being of the home.
>
> To reach the thousands of rural homes in our land, we must have the aid of the agricultural societies, and with this end in view, we are calling upon you to organize committees to collaborate with the work of this committee. The first work to be done by the home economics committees of the agricultural societies is to organize committees in the country to assist with the work. Copies of plans of work for home economics committees of agricultural societies and for rural home economics committees are inclosed.
>
> A copy of this letter is being sent at this time to only four societies. As the work develops, other societies will be invited to collaborate with the home economics committee of the Norway Welfare Society.

The plan of work outlined for the home economics committees of an agricultural society provides for at least three and not more than five members, appointed by the society, representing the large as well as the small farm homes in the county, and having the following duties:

Duties of committees of agricultural societies

(1) To organize rural home economics committees.
(2) To assist these committees by providing teachers and lecturers for courses and demonstrations and aiding them to procure equipment and material to be used in their work.
(3) To collaborate with the home economics committee of the Norway Welfare Society.
(4) To keep minutes of all meetings and submit a report in duplicate each year to the agricultural society, one copy of which will be sent to the Norway Welfare Society.

Rural home economics committees

A rural home economics committee, according to the plan of the Norway Welfare Society, has five members, two of whom are chosen by the district agricultural society, two by the district small holders' society and one by the local section of the home welfare society. These members are women and represent both small and large homes. The territory of a rural committee is a district (herred), except in cases of exceptionally large districts, when several committees may be organized. The agricultural, small holders' and housewives' societies, savings banks, and local authorities of the district give financial support to these committees. The objects of the rural home economics committees are:

Objects of rural committees

(1) To encourage economical and properly organized home management by the use of home products as far as possible, and the abundant and proper use of fish, fruit, and vegetables.
(2) To advocate the use of milk instead of coffee and tea, theoretical and practical instruction being given in the composition, use and value of milk and other articles of food.
(3) To give instruction in the hygiene of mothers; care, feeding and training of children; care of livestock, gardening, and small industries.
(4) To introduce instruction in cooking, needlework, and handicrafts into the public schools.
(5) To give instruction in the use of electricity and in practical and economical kitchen arrangement.
(6) To encourage home industry and the use of home made garments and articles that contribute to the convenience and comfort of the home.
(7) To establish communal home management schools and give instruction through courses, demonstrations, and lectures in care of livestock, gardening, and small trades.
(8) To award prizes in all branches of home economics, gardening and small industries, and to arrange local exhibitions of all kinds of home made and home grown products.

(9) To send an annual report to the home economics committee of the agricultural society.

Sweden

Boys' and girls' club work. - The members of the organization for farm youth in Sweden (Jordbrukare-Ungdomens Forbund) founded in 1918, and commonly known as the J.U.F., are divided into groups in each county. A local group is usually composed of young people from one parish and is designated by the name of the parish, thus the Arbro group, the members of the league in Arbro parish. In a large parish two or more local groups may be organized and sometimes two or more very small parishes form the territory of a group. A local group may have 40 or more members. In 1925 there were 234 groups with a total membership of 10,731 young people, that is, an average of 45 members in each group. Each local group was divided into a number of small groups, such as study clubs, a singing club, an athletic club, and groups participating in competitions.

Groups

Competitions form one of the important activities of the league and are given second place on its program of work. The object of the competitions is to arouse the interest of the young people in the farming profession and to teach them to manage their own enterprises. They are conducted very much like boys' and girls' club projects in the United States and are organized in plowing, milking, farm experiments; raising root crops, potatoes and flax; garden management, sorting and packing fruit; poultry-raising; account-keeping, home industries; care of manure, hay-making; food preservation and other farm and home projects. There must be at least 5 competitors in each project. The number of competitions and competitors has increased rapidly in the last few years. In 1922, 20 competitions were organized with 149 competitors against 435 with 3,081 competitors in 1927, that is an average of 7 young persons participating in each competition. The competitions carried on by each group are supervised by a leader who is required:

Competitions

Requirements of leaders of competitions

(1) To call a meeting of the young people and endeavor to arouse their interest in practical work.
(2) To allow them to decide upon the competitions they wish to undertake during the year.
(3) To instruct the competitors before beginning work in the method of conducting the competitions, and again during the summer in the case of experiments and crop-growing projects and to distribute the printed instructions published by the league for this purpose.
(4) To send announcements of the competitions to the local agricultural society with request for officials to assist in giving instruction and awarding prizes.

(5) To notify the office of the league in regard to contemplated competitions and at the close of each one to make a report to the office on blank forms furnished for the purpose.

Competitors in growing root crops, potatoes and flax and in garden management are required to make a written report to the leader. A committee of three persons is appointed to award prizes to the competitors in each group, and is composed of the competition leader as an ex-officio member, a member of the group's board of directors, and a third person not connected with the group, who is chosen by the other two members.

A large number of boys and girls are earning good incomes from their little farm projects, in some cases more than 100 kronor (about $27.00) from a small plot of ground, after all expenses including rent of the land, cost of fertilizer, seed, and so forth have been deducted.

Funds provided by the International Education Board

Funds were provided two or three years ago by the International Education Board for the employment of men and women to make occasional visits to competitors to give them advice and instruction in conducting their projects. During the summer of 1927 instructors were employed in 8 counties under this new arrangement. Reports from these instructors show that the work with young people is progressing; Noteworthy results were obtained in a few cases in crop-growing projects in Kronoberg County in spite of adverse weather conditions, attacks from insect pests and plant diseases, and uniformly good results in Halland, two of the counties benefited by the grant of the International Education Board. In Kronoberg County 91 boys and 39 girls, whose ages ranged from 9 to 26 years, conducted crop-growing projects. Nine boys raised kitchen vegetables and 83 field crops, while 5 girls raised root crops and 34 kitchen vegetables. The average area for field crops was 550 square meters (5,912.5 square feet0, and for kitchen vegetables 100 square meters (1,075 square feet), but the actual area cultivated by each member ranged from 200 square meters to more than 2,000 (2,150 to 21,500 square feet) according to local conditions, the member's age, and so forth. A boy of 19 who had 1,000 square meters (10,750 square feet) in potatoes made the following memorandum in his notebook:

Crop-growing competitions

> "The potatoes came up evenly and nicely. During the rains of late summer the drains could not carry off all the water, so that the furrows were half full for weeks, which, of course, affected the size, but strange to say, not the quality of the crop. The yield (19,520 kg. - about 42,944 pounds) per hectare is entirely satisfactory, considering the unusually unfavorable year. The net profit of 26.77

> kronor (about $7.23 that is 267.70 kronor (about $72.27) a hectare or 2.47 acres is not to be despised in the present crisis of Swedish agriculture. The experiment shows that potatoes are one of the crops to which more attention must be given than heretofore if satisfactory returns are to be obtained from our farming."

Another boy, 14 years old, who had 500 square meters (about 5,375 square feet) in turnips and potatoes, though obliged to sow the turnips the second time, as the first lot was destroyed by flea beetles, had a net profit of 54.99 kronor (about $14.85).

Cooking courses

In Kronoberg County, the adviser in girls' work, whose expenses were paid by the International Education Board, reported very satisfactory results from one-day cooking courses held in July and October, 1927, at the girls' homes. There were 12 courses with an attendance of 91, that is six or seven young persons at each course, who with a few exceptions were girls. The ages of the pupils ranged from 10 to 30 years. The instructress had no difficulty in obtaining the use of a kitchen wherever she applied, and the older members of the family showed great interest in the courses. The usual program was to prepare a dinner, bake bread, and can products.

Crop-growing projects in Halland County

In Halland County, where the second year of club work conducted with funds contributed by the International Education Board ended October 31, 1927, 148 boys and 66 girls engaged in crop-growing projects, an increase of 58.9 per cent over the previous year. Potatoes, root crops, garden vegetables and market crops were raised. The entire area under cultivation was 44,379 square meters (about 477,074 square feet) or nearly 11 acres. The value of the crops raised amounted to 6,731.17 kronor (about $1,817.42), that is 1,517.20 kronor (about $409.64) per hectare or $165.72 an acre. After all expenses were deducted there was a net profit of 3,754 kronor (about $1,013.58), that is a little more than $100 an acre. The largest profit, 139.70 kronor (about $37.72) was made by a 14-year old girl.

Pig clubs

In Uppsala County a beginning has been made in organizing pig clubs. In the summer of 1926, 80 boys about 10 years of age, found after their pigs were slaughtered and sold, the breeder reimbursed and all expenses of feeding paid, that they had realized a profit, and a group of students who took up pig club work made about $1,080 or an average of $13.96 each.

Older members as local leaders

Besides taking part in competitions themselves, some of the older league members assist in conducting competitions among the younger boys and girls, and help to organize courses in agriculture, care of gardens, pruning trees, slaughtering, cooking and canning, farm bookkeeping, home industries, and care of the sick.

Union of South Africa

Extension work in 1927-28. - The Division of Agricultural Education and Extension has charge of the extension work conducted by the Department of Agriculture of South Africa as well as by the four schools of agriculture, located at Glen, Grootfontein, Cedara, and Potchefstroom, and cooperates with the University of Stollenbosch-Elsenburg in carrying on work of this nature. The extension staff includes extension officers, stationed in various districts throughout the Union, whose whole time is devoted to the work; the sheep and wool officers, poultry extension officers, home economics officers, and the officer in charge of club work, all members of the staff of the division of agricultural education and extension; and lecturers or specialists connected with the schools of agriculture.

Extension staff

Twenty-four extension officers were employed during the year ending June 30, 1928. Their principal duties are to give personal advice and instruction to farmers regarding their problems, hold lectures, establish demonstration plots, and direct the extension activities of the four schools of agriculture, which are the extension centers in their respective areas. During the year the officers gave 630 lectures with an attendance of 22,080 persons, visited 3,270 farms and established 82 demonstration plots.

Extension officers

The sheep and wool officers and poultry extension officers visited 4,238 farms during the year and gave 940 lectures. The college experts who devote a large part of their time to extension work and cooperate closely with the division of agricultural education and extension gave 1,656 lectures and demonstrations and made 6,296 farm visits.

Specialists

The home economics section of the division of agricultural education and extension employed 6 women trained in domestic science institutions of South Africa to give lectures and demonstrations in cooking with emphasis on canning fruits and vegetables for use during the winter, planning the diet, dressmaking, millinery, laundry work, fancy and decorative needlework, child welfare, and infant feeding, labor-saving devices, kitchen arrangement, and the like. About 530 lectures and demonstrations were given in 1927-28 with a total attendance of 11,000. Provision has been made in the budget for 1929-30 for the employment of three more home economics officers. The work of this section is principally conducted through organized bodies of farm women, known as "home economics branches." These branches, each of which must have at least 10 members, are affiliated with the women's section of the Transvaal Agricultural Union. In 1927-28 there were 145 home economics branches. Each branch selects the subjects desired, and is assisted by the home economics section in planning the demonstrations.

Home economics officers

Club work was begun by the department of agriculture in the form of boys' maize-growing competitions. Four or five years ago the Transvaal Agricultural Union founded a junior section known as the Prosperity League, the object of which is to organize boys' and girls' clubs. The division of agricultural education and extension now employs a special officer to direct all club work in the Union. In 1928, there were 565 maize-growing, 76 tobacco-growing competitions, besides kaffir corn and poultry clubs.

Club work

Under the direction of the publications branch of the division of agricultural education and extension a beginning was made in 1927-28 in using motion pictures as a means of instruction for farmers. The first film prepared, "The Farmers' Friend," demonstrated what the department of agriculture was doing to help the farmers. The broadcasting of a weekly agricultural talk has also been begun by the officers of the department.

Motion pictures, radio

The demonstration train is not one of the important features of extension work of the division. On account of the drought only three tours were made during the year; 42 centers were visited with an attendance of nearly 19,000.

Demonstration train